



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application Serial No. 09/512,968
Filing Date February 24, 2000
Inventor David R. Hembree
Assignee Micron Technology, Inc.
Group Art Unit 2832
Examiner V. Nguyen
Attorney's Docket No. MI22-1363
Confirmation No. 5950
Client No. 021567
Title: Wafer Processing Apparatuses and Electronic Device Workpiece Processing
Apparatuses (As Amended)

RESPONSE TO FEBRUARY 17, 2004 OFFICE ACTION

RECEIVED

JUN 28 2004

To: Mail Stop Amendment
Assistant Commissioner for Patents
P.O. Box 1450
Alexandria VA 22313-1450

TECH CENTER 2800

From: James D. Shaurette (Tel. 509-624-4276; Fax 509-838-3424)
Wells, St. John, P.S.
601 W. First Avenue, Suite 1300
Spokane, WA 99201-3828

Sir:

Responsive to the Office Action dated February 17, 2004, Applicant amends and
remarks as follows:

AMENDMENTS

06/24/2004 HVUONG1 00000006 09512968

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162.00 OP

EV372455438

In the Claims

Claims 1-63 are canceled.

64. [Previously Presented] A wafer processing apparatus comprising:
a wafer holder adapted to receive a wafer having an electrical coupling, the wafer holder including an electrical coupling configured to electrically couple with the electrical coupling of the wafer and communicate signals between the wafer and the wafer holder of the wafer processing apparatus for fabrication of integrated circuitry using the wafer processing apparatus.
65. [Previously Presented] The wafer processing apparatus according to claim 64 further comprising a data gathering device coupled with the electrical coupling of the wafer holder and configured to receive the signals.
66. [Previously Presented] The wafer processing apparatus according to claim 65 further comprising a contact plate configured to communicate the signal intermediate the wafer holder and the data gathering device.
67. [Previously Presented] The wafer processing apparatus according to claim 64 wherein the wafer holder includes a first surface, a second surface, and an electrical interconnect configured to electrically couple the first surface and the second surface.

68. [Previously Presented] The wafer processing apparatus according to claim 67 wherein the first surface of the wafer holder is configured to face a received wafer and the second surface is configured to face a chuck.
69. [Previously Presented] The wafer processing apparatus according to claim 64 wherein the wafer holder includes a plurality of electrical couplings adapted to couple with a plurality of electrical couplings of the wafer.
70. [Previously Presented] The wafer processing apparatus according to claim 64 wherein the wafer holder comprises a chuck.
71. [Previously Presented] The wafer processing apparatus according to claim 64 wherein the wafer holder comprises a chuck configured to receive one of a calibration wafer and a production wafer.
72. [Previously Presented] The wafer processing apparatus according to claim 71 wherein the wafer holder includes vacuum chambers adapted to receive a vacuum to couple one of the calibration wafer and the production wafer with the chuck.
73. [Previously Presented] The wafer processing apparatus according to claim 64 wherein the wafer holder comprises an intermediate member adapted to couple with a chuck.

74. [Previously Presented] The wafer processing apparatus according to claim 64 wherein the wafer holder includes a vacuum chamber adapted to receive a vacuum to couple a received wafer with the wafer holder.

75. [Previously Presented] The wafer processing apparatus according to claim 64 wherein the electrical coupling of the wafer holder comprises a conductive column configured to extend outward from plural surfaces of the wafer holder.

76. [Previously Presented] The wafer processing apparatus according to claim 75 further comprising a contact plate including circuitry configured to provide electrical connection with the conductive column.

77. [Previously Presented] The wafer processing apparatus according to claim 64 wherein the electrical coupling of the wafer holder is adapted to contact the electrical coupling of the wafer.

78. [Previously Presented] The wafer processing apparatus according to claim 64 wherein the wafer holder is adapted to expose the wafer to a processing environment to process the wafer.

79. [Previously Presented] A wafer processing apparatus comprising:
a wafer holder having circuitry configured to communicate a process signal from a received wafer and the process signal containing information regarding processing of the wafer using the wafer processing apparatus.

80. [Previously Presented] The wafer processing apparatus according to claim 79 wherein the wafer holder is adapted to expose the wafer to a processing environment to process the wafer.

81. [Previously Presented] A wafer processing apparatus comprising:
a chuck including a surface, an electrical coupling adjacent the surface, and an electrical interconnect configured to connect with the electrical coupling of the chuck and conduct a signal within the chuck;
an intermediate member adapted to receive a wafer and the intermediate member having a first surface and a second surface and the intermediate member including:
an electrical coupling adjacent the first surface and configured to couple with the electrical coupling of the chuck;
an electrical coupling adjacent the second surface; and
an electrical interconnect configured to connect the electrical coupling adjacent the first surface and the electrical coupling adjacent the second surface; and
a wafer configured to couple with the second surface of the intermediate member, the wafer including a sensor and an electrical coupling configured to provide electrical

connection of the sensor with the electrical coupling of the second surface of the intermediate member.

82. [Previously Presented] The wafer processing apparatus according to claim 81 further comprising a data gathering device coupled with the electrical coupling of the chuck and configured to receive the signal.

83. [Previously Presented] The wafer processing apparatus according to claim 82 further comprising a contact plate configured to communicate the signal intermediate the chuck and the data gathering device.

84. [Previously Presented] The wafer processing apparatus according to claim 81 wherein the sensor comprises a resistance temperature device.

85. [Previously Presented] The wafer processing apparatus according to claim 81 wherein the wafer comprises a calibration wafer.

86. [Previously Presented] The wafer processing apparatus according to claim 81 wherein the electrical interconnect comprises a conductive column configured to extend outward from plural surfaces of the chuck.

87. [Previously Presented] The wafer processing apparatus according to claim 86 further comprising a contact plate including circuitry configured to provide electrical connection with electrical couplings of the chuck.

88. [Previously Presented] The wafer processing apparatus according to claim 81 wherein the intermediate member is configured to expose the wafer to a processing environment to process the wafer.

89. [Previously Presented] A wafer processing apparatus comprising:
a chuck including a surface, a plurality of electrical couplings adjacent the surface, and a plurality of electrical interconnects configured to connect with respective electrical couplings of the chuck and conduct signals within the chuck;

an intermediate member adapted to receive a wafer and the intermediate member having a first surface and a second surface and the intermediate member including:

a plurality of electrical couplings adjacent the first surface and configured to couple with respective electrical couplings of the chuck;

a plurality of electrical couplings adjacent the second surface; and

a plurality of electrical interconnects configured to electrically connect the electrical couplings of the first surface with respective electrical couplings of the second surface;

a calibration wafer configured to couple with the second surface of the intermediate member, the calibration wafer including a plurality of resistance temperature devices configured to generate process signals, and a plurality of electrical connections configured

to electrically connect the resistance temperature devices with respective electrical couplings of the second surface of the intermediate member; and

a data gathering device coupled with the electrical interconnects of the chuck and configured to receive the process signals from the resistance temperature devices through the intermediate member and the chuck.

90. [Previously Presented] The wafer processing apparatus according to claim 89 wherein the intermediate member is configured to expose the wafer to a processing environment to process the wafer.

91. [Currently Amended] An electronic device workpiece processing apparatus comprising:

a workpiece holder adapted to receive an electronic device workpiece having an electrical coupling, the workpiece holder including an electrical coupling configured to electrically couple with the electrical coupling of the electronic device workpiece and communicate signals between the electronic device workpiece and the workpiece holder during fabrication of integrated circuitry of the electronic device workpiece using the electronic device workpiece processing apparatus, wherein the workpiece holder includes a vacuum chamber adapted to receive a vacuum to couple a received electronic device workpiece with the workpiece holder.

92. [Previously Presented] The apparatus of claim 91 wherein the workpiece holder is configured to expose the electronic device workpiece to a processing environment to process the electronic device workpiece.

93. [Previously Presented] An electronic device workpiece processing apparatus comprising:

a workpiece holder adapted to receive an electronic device workpiece having an electrical coupling, the workpiece holder including an electrical coupling configured to electrically couple with the electrical coupling of the electronic device workpiece and communicate signals between the electronic device workpiece and the workpiece holder, wherein the electrical coupling of the workpiece holder is configured to extend outward from plural surfaces of the workpiece holder; and

a contact plate including circuitry configured to provide electrical connection with the conductive column.

94. [Previously Presented] The apparatus of claim 93 wherein the workpiece holder is configured to expose the electronic device workpiece to a processing environment to process the electronic device workpiece.

95. [Previously Presented] An electronic device workpiece processing apparatus comprising:

- a chuck including a surface, an electrical coupling adjacent the surface, and electrical interconnect configured to connect with the electrical coupling of the chuck and conduct a signal within the chuck;

- an intermediate member having a first surface and a second surface and the intermediate member including:

 - an electrical coupling adjacent the first surface and configured to couple with the electrical coupling of the chuck;

 - an electrical coupling adjacent the second surface; and

 - an electrical interconnect configured to connect the electrical coupling adjacent the first surface and the electrical coupling adjacent the second surface;

 - an electronic device workpiece configured to couple with the second surface of the intermediate member, the electronic device workpiece including a sensor and an electrical coupling configured to provide electrical connection of the sensor with the electrical coupling of the second surface of the intermediate member;

 - a data gathering device coupled with the electrical coupling of the chuck and configured to receive the signal; and

 - a contact plate configured to communicate the signal intermediate the chuck and the data gathering device.

96. [Previously Presented] The apparatus of claim 95 wherein the intermediate member is configured to expose the electronic device workpiece to a processing environment to process the electronic device workpiece.

97. [Previously Presented] An electronic device workpiece processing apparatus comprising:

- a chuck including a surface, an electrical coupling adjacent the surface, and electrical interconnect configured to connect with the electrical coupling of the chuck and conduct a signal within the chuck;

- an intermediate member having a first surface and a second surface and the intermediate member including:

 - an electrical coupling adjacent the first surface and configured to couple with the electrical coupling of the chuck;

 - an electrical coupling adjacent the second surface; and

 - an electrical interconnect configured to connect the electrical coupling adjacent the first surface and the electrical coupling adjacent the second surface; and

 - an electronic device workpiece configured to couple with the second surface of the intermediate member, the electronic device workpiece including a sensor comprising a resistance temperature device, and an electrical coupling configured to provide electrical connection of the sensor with the electrical coupling of the second surface of the intermediate member.

98. [Previously Presented] The apparatus of claim 97 wherein the intermediate member is configured to expose the electronic device workpiece to a processing environment to process the electronic device workpiece.

99. [Previously Presented] An electronic device workpiece processing apparatus comprising:

- a chuck including a surface, an electrical coupling adjacent the surface, and electrical interconnect configured to connect with the electrical coupling of the chuck and conduct a signal within the chuck;

- a contact plate including circuitry configured to provide electrical connection with the electrical coupling of the chuck;

- an intermediate member having a first surface and a second surface and the intermediate member including:

 - an electrical coupling adjacent the first surface and configured to couple with the electrical coupling of the chuck;

 - an electrical coupling adjacent the second surface; and

 - an electrical interconnect configured to connect the electrical coupling adjacent the first surface and the electrical coupling adjacent the second surface, wherein the electrical interconnect comprises a conductive column configured to extend outward from plural surfaces of the chuck; and

 - an electronic device workpiece configured to couple with the second surface of the intermediate member, the electronic device workpiece including a sensor and an electrical

coupling configured to provide electrical connection of the sensor with the electrical coupling of the second surface of the intermediate member.

100. [Previously Presented] The apparatus of claim 99 wherein the intermediate member is adapted to expose the electronic device workpiece to a processing environment to process the electronic device workpiece.

101. [Previously Presented] An electronic device workpiece processing apparatus comprising:

an electronic device workpiece including a sensor and an electrical coupling; and
an intermediate member including a surface having an electrical coupling and adapted to expose the electronic device workpiece to a processing environment to process the electronic device workpiece;

wherein the electrical coupling of the electronic device workpiece is configured to provide electrical connection of the sensor with the electrical coupling of the surface of the intermediate member.

102. [Previously Presented] The apparatus according to claim 101 wherein the electronic device workpiece comprises a wafer.

103. [Previously Presented] The wafer processing apparatus according to claim 64 wherein the wafer holder is configured to support a wafer for processing within the wafer

processing apparatus to form a plurality of discrete integrated circuits of a plurality of respective dies to be singulated from the wafer at a subsequent moment in time.

104. [Previously Presented] The wafer processing apparatus according to claim 64 wherein the wafer holder is configured to expose a wafer to a processing environment within the wafer processing apparatus to form a plurality of discrete integrated circuits of a plurality of respective dies to be singulated from the wafer at a subsequent moment in time.

105. [Previously Presented] The wafer processing apparatus according to claim 64 further comprising a processing area of the wafer processing apparatus configured to process a wafer supported using the wafer holder to fabricate a plurality of discrete integrated circuits of a plurality of respective dies to be singulated from the wafer at a subsequent moment in time.

106. [Previously Presented] The wafer processing apparatus according to claim 64 wherein the wafer processing apparatus is configured to process a wafer supported using the wafer holder to fabricate a plurality of discrete integrated circuits of a plurality of respective dies to be singulated from the wafer at a subsequent moment in time.

107. [Previously Presented] The wafer processing apparatus according to claim 64 wherein the wafer comprises a semiconductive wafer comprising a plurality of integrated circuit dies prior to singulation of at least one of the dies at a subsequent moment in time.

108. [Previously Presented] An article of manufacture comprising:

a wafer processing apparatus configured to fabricate integrated circuitry using a plurality of wafers and comprising a wafer holder configured to receive at least one of the wafers having an electrical coupling, and wherein the wafer holder comprises an electrical coupling configured to electrically couple with the electrical coupling of the at least one wafer and to communicate signals between the at least one wafer and the wafer holder.

109. [Previously Presented] The article of claim 108 wherein the electrical coupling of the wafer holder is configured to contact the electrical coupling of the wafer.

110. [Previously Presented] The article of claim 108 wherein the communicated signals comprise information regarding processing of the wafer using the wafer processing apparatus.

111. [Previously Presented] An electronic device workpiece processing apparatus comprising:

an intermediate member comprising a first surface and a second surface, wherein the second surface comprises an electrical coupling; and

an electronic device workpiece including a sensor and an electrical coupling configured to provide electrical connection of the sensor with the electrical coupling of the second surface of the intermediate member.

112. [New] The wafer processing apparatus according to claim 64 wherein the electrical coupling of the wafer holder is electrically conductive to establish an electrical connection with the electrical coupling of the wafer wherein electrons of the signals are exchanged between the electrical couplings of the wafer holder and the wafer.

113. [New] The wafer processing apparatus according to claim 64 wherein the signals are generated using electrical circuitry of the wafer.

114. [New] The wafer processing apparatus according to claim 64 wherein the signals comprise electrical signals.

115. [New] The wafer processing apparatus according to claim 79 wherein the process signal comprises information regarding the processing of the wafer for fabrication of integrated circuitry using the wafer processing apparatus.

116. [New] The wafer processing apparatus according to claim 79 wherein the wafer holder is configured to receive the process signal comprising an electrical signal using an electrical coupling of the wafer holder in electrical contact with an electrical coupling of the wafer.

117. [New] The electronic device workpiece processing apparatus according to claim 91 wherein the communicated signals comprise information regarding processing of the wafer for fabrication of the integrated circuitry using the wafer processing apparatus.

118. [New] The electronic device workpiece processing apparatus according to claim 91 wherein the communicated signals comprise electrical signals.

119. [New] The article according to claim 108 wherein the communicated signals comprise information regarding processing of the wafers for fabrication of the integrated circuitry using the wafer processing apparatus.

120. [New] The article according to claim 108 wherein the electrically coupled electrical couplings of the wafer and the wafer holder are in electrical contact with one another to communicate the signals comprising electrical signals between the at least one wafer and the wafer holder.



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TRANSMITTAL FORM <small>(to be used for all correspondence after initial filing)</small>	Application Number	09/512,958	RECEIVED JUN 28 2004 TECH CENTER 2800
	Filing Date	2/24/2000	
	First Named Inventor	David R. Hembree	
	Art Unit	2829	
	Examiner Name	V. Nguyen	
	Attorney Docket Number	M122-1363	
Total Number of Pages in This Submission			

ENCLOSURES (Check all that apply)		
<input checked="" type="checkbox"/> Fee Transmittal Form	<input type="checkbox"/> Drawing(s)	<input type="checkbox"/> After Allowance communication to Technology Center (TC)
<input checked="" type="checkbox"/> Fee Attached	<input type="checkbox"/> Licensing-related Papers	<input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences
<input checked="" type="checkbox"/> Amendment/Reply	<input type="checkbox"/> Petition	<input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief)
<input type="checkbox"/> After Final	<input type="checkbox"/> Petition to Convert to a Provisional Application	<input type="checkbox"/> Proprietary Information
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<input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53		Cited References (4)
SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT		
Firm or Individual name	James D. Shaurette, Reg. No. 39,833 Wells St. John, P.S.	
Signature		
Date	6/17/04	

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FEE TRANSMITTAL for FY 2004 Effective 10/01/2003. Patent fees are subject to annual revision. <input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27		Compl to if Known	
		Application Number	09/512,968
		Filing Date	2/24/2000
		First Named Inventor	David R. Hembree
		Examiner Name	V. Nguyen
		Art Unit	2829
TOTAL AMOUNT OF PAYMENT (\$) 452.00		Attorney Docket No.	MI22-1363

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METHOD OF PAYMENT (check all that apply) <input checked="" type="checkbox"/> Check <input type="checkbox"/> Credit card <input type="checkbox"/> Money Order <input type="checkbox"/> Other <input type="checkbox"/> None <input checked="" type="checkbox"/> Deposit Account: Deposit Account Number: 23-0925 Deposit Account Name: Wells St. John, P.S. The Director is authorized to: (check all that apply) <input type="checkbox"/> Charge fee(s) indicated below <input checked="" type="checkbox"/> Credit any overpayments <input checked="" type="checkbox"/> Charge any additional fee(s) or any underpayment of fee(s) <input type="checkbox"/> Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.		FEE CALCULATION (continued)																																																																																																																																																													
1. BASIC FILING FEE <table border="1"> <thead> <tr> <th>Large Entity</th> <th>Small Entity</th> <th>Fee Description</th> <th>Fee Paid</th> </tr> </thead> <tbody> <tr> <td>1001 770</td> <td>2001 385</td> <td>Utility filing fee</td> <td></td> </tr> <tr> <td>1002 340</td> <td>2002 170</td> <td>Design filing fee</td> <td></td> </tr> <tr> <td>1003 530</td> <td>2003 265</td> <td>Plant filing fee</td> <td></td> </tr> <tr> <td>1004 770</td> <td>2004 385</td> <td>Reissue filing fee</td> <td></td> </tr> <tr> <td>1005 160</td> <td>2005 80</td> <td>Provisional filing fee</td> <td></td> </tr> <tr> <td colspan="3">SUBTOTAL (1) (\$)</td> <td>0</td> </tr> </tbody> </table>		Large Entity	Small Entity	Fee Description	Fee Paid	1001 770	2001 385	Utility filing fee		1002 340	2002 170	Design filing fee		1003 530	2003 265	Plant filing fee		1004 770	2004 385	Reissue filing fee		1005 160	2005 80	Provisional filing fee		SUBTOTAL (1) (\$)			0	3. ADDITIONAL FEES <table border="1"> <thead> <tr> <th>Large Entity</th> <th>Small Entity</th> <th>Fee Description</th> <th>Fee Paid</th> </tr> </thead> <tbody> <tr> <td>1051 130</td> <td>2051 65</td> <td>Surcharge - late filing fee or oath</td> <td></td> </tr> <tr> <td>1052 50</td> <td>2052 25</td> <td>Surcharge - late provisional filing fee or cover sheet</td> <td></td> </tr> <tr> <td>1053 130</td> <td>1053 130</td> <td>Non-English specification</td> <td></td> </tr> <tr> <td>1812 2,520</td> <td>1812 2,520</td> <td>For filing a request for <i>ex parte</i> reexamination</td> <td></td> </tr> <tr> <td>1804 920*</td> <td>1804 920*</td> <td>Requesting publication of SIR prior to Examiner action</td> <td></td> </tr> <tr> <td>1805 1,840*</td> <td>1805 1,840*</td> <td>Requesting publication of SIR after Examiner action</td> <td></td> </tr> <tr> <td>1251 110</td> <td>2251 55</td> <td>Extension for reply within first month</td> <td>110.00</td> </tr> <tr> <td>1252 420</td> <td>2252 210</td> <td>Extension for reply within second month</td> <td></td> </tr> <tr> <td>1253 950</td> <td>2253 475</td> <td>Extension for reply within third month</td> <td></td> </tr> <tr> <td>1254 1,480</td> <td>2254 740</td> <td>Extension for reply within fourth month</td> <td></td> </tr> <tr> <td>1255 2,010</td> <td>2255 1,005</td> <td>Extension for reply within fifth month</td> <td></td> </tr> <tr> <td>1401 330</td> <td>2401 165</td> <td>Notice of Appeal</td> <td></td> </tr> <tr> <td>1402 330</td> <td>2402 165</td> <td>Filing a brief in support of an appeal</td> <td></td> </tr> <tr> <td>1403 290</td> <td>2403 145</td> <td>Request for oral hearing</td> <td></td> </tr> <tr> <td>1451 1,510</td> <td>1451 1,510</td> <td>Petition to institute a public use proceeding</td> <td></td> </tr> <tr> <td>1452 110</td> <td>2452 55</td> <td>Petition to revive - unavoidable</td> <td></td> </tr> <tr> <td>1453 1,330</td> <td>2453 665</td> <td>Petition to revive - unintentional</td> <td></td> </tr> <tr> <td>1501 1,330</td> <td>2501 665</td> <td>Utility issue fee (or reissue)</td> <td></td> </tr> <tr> <td>1502 480</td> <td>2502 240</td> <td>Design issue fee</td> <td></td> </tr> <tr> <td>1503 640</td> <td>2503 320</td> <td>Plant issue fee</td> <td></td> </tr> <tr> <td>1460 130</td> <td>1460 130</td> <td>Petitions to the Commissioner</td> <td></td> </tr> <tr> <td>1807 50</td> <td>1807 50</td> <td>Processing fee under 37 CFR 1.17(q)</td> <td></td> </tr> <tr> <td>1806 180</td> <td>1806 180</td> <td>Submission of Information Disclosure Stmt</td> <td>180.00</td> </tr> <tr> <td>8021 40</td> <td>8021 40</td> <td>Recording each patent assignment per property (times=number of properties)</td> <td></td> </tr> <tr> <td>1809 770</td> <td>2809 385</td> <td>Filing a submission after final rejection (37 CFR 1.129(a))</td> <td></td> </tr> <tr> <td>1810 770</td> <td>2810 385</td> <td>For each additional invention to be examined (37 CFR 1.129(b))</td> <td></td> </tr> <tr> <td>1801 770</td> <td>2801 385</td> <td>Request for Continued Examination (RCE)</td> <td></td> </tr> <tr> <td>1802 900</td> <td>1802 900</td> <td>Request for expedited examination of a design application</td> <td></td> </tr> <tr> <td colspan="3">Other fee (specify)</td> <td></td> </tr> <tr> <td colspan="3">*Reduced by Basic Filing Fee Paid</td> <td></td> </tr> <tr> <td colspan="3">SUBTOTAL (3) (\$)</td> <td>290.00</td> </tr> </tbody></table>		Large Entity	Small Entity	Fee Description	Fee Paid	1051 130	2051 65	Surcharge - late filing fee or oath		1052 50	2052 25	Surcharge - late provisional filing fee or cover sheet		1053 130	1053 130	Non-English specification		1812 2,520	1812 2,520	For filing a request for <i>ex parte</i> reexamination		1804 920*	1804 920*	Requesting publication of SIR prior to Examiner action		1805 1,840*	1805 1,840*	Requesting publication of SIR after Examiner action		1251 110	2251 55	Extension for reply within first month	110.00	1252 420	2252 210	Extension for reply within second month		1253 950	2253 475	Extension for reply within third month		1254 1,480	2254 740	Extension for reply within fourth month		1255 2,010	2255 1,005	Extension for reply within fifth month		1401 330	2401 165	Notice of Appeal		1402 330	2402 165	Filing a brief in support of an appeal		1403 290	2403 145	Request for oral hearing		1451 1,510	1451 1,510	Petition to institute a public use proceeding		1452 110	2452 55	Petition to revive - unavoidable		1453 1,330	2453 665	Petition to revive - unintentional		1501 1,330	2501 665	Utility issue fee (or reissue)		1502 480	2502 240	Design issue fee		1503 640	2503 320	Plant issue fee		1460 130	1460 130	Petitions to the Commissioner		1807 50	1807 50	Processing fee under 37 CFR 1.17(q)		1806 180	1806 180	Submission of Information Disclosure Stmt	180.00	8021 40	8021 40	Recording each patent assignment per property (times=number of properties)		1809 770	2809 385	Filing a submission after final rejection (37 CFR 1.129(a))		1810 770	2810 385	For each additional invention to be examined (37 CFR 1.129(b))		1801 770	2801 385	Request for Continued Examination (RCE)		1802 900	1802 900	Request for expedited examination of a design application		Other fee (specify)				*Reduced by Basic Filing Fee Paid				SUBTOTAL (3) (\$)			290.00
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SUBMITTED BY Name (Print/Type) James D. Shaurette Signature [Signature]		Registration No. (Attorney/Agent) 39, 833 Date 6/17/04	Telephone (509) 604-4276 (Complete if applicable)
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WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.
 This collection of information is required by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or any suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS.
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FEE TRANSMITTAL for FY 2004

Effective 10/01/2003, Patent fees are subject to annual revision.

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$ 452.00)

Approved for use through 07/31/2006. OMB 0651-0032
U.S. Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE
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Compl. to If Known

Application Number 09/512,968
Filing Date 2/24/2004
First Named Inventor James D. Shaurette
Examiner Name Nguyen
Art Unit 2829
Attorney Docket No. MI 22-1363

TECH CENTER 2800

METHOD OF PAYMENT (check all that apply)

☒ Check ☐ Credit card ☐ Money Order ☐ Other ☐ None

☒ Deposit Account:

Deposit Account Number 23-0925
Deposit Account Name Wells St. John, P.S.

The Director is authorized to: (check all that apply)

☐ Charge fee(s) indicated below ☒ Credit any overpayments

☒ Charge any additional fee(s) or any underpayment of fee(s)

☐ Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.

FEE CALCULATION

1. BASIC FILING FEE

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid
1001 770	2001 385	Utility filing fee	
1002 340	2002 170	Design filing fee	
1003 530	2003 265	Plant filing fee	
1004 770	2004 385	Reissue filing fee	
1005 160	2005 80	Provisional filing fee	

SUBTOTAL (1) (\$ - 0)

2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid
1201 18	2202 9	Claims in excess of 20	
1202 86	2201 43	Independent claims in excess of 3	
1203 290	2203 145	Multiple dependent claim, if not paid	
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1205 18	2205 9	** Reissue claims in excess of 20 and over original patent	

SUBTOTAL (2) (\$ 162.00)

**or number previously paid, if greater. For Reissues, see above

3. ADDITIONAL FEES

Large Entity - Small Entity

Fee Code (\$)	Fee Code (\$)	Fee Description	Fee Paid
1051 130	2051 65	Surcharge - late filing fee or oath	
1052 50	2052 25	Surcharge - late provisional filing fee or cover sheet	
1053 130	1053 130	Non-English specification	
1812 2,520	1812 2,520	For filing a request for ex parte reexamination	
1804 920*	1804 920*	Requesting publication of SIR prior to Examiner action	
1805 1,840*	1805 1,840*	Requesting publication of SIR after Examiner action	
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1802 900	2802 900	Request for expedited examination of a design application	

Other fee(s) specify:

Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$ 290.00)

SUBMITTED BY

Name (Print/Type) James D. Shaurette

Signature [Signature]

Registration No. (Inventor/assignor) 39,833

(Complete if applicable)

Telephone (509) 624-4276

Date 6/17/04

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